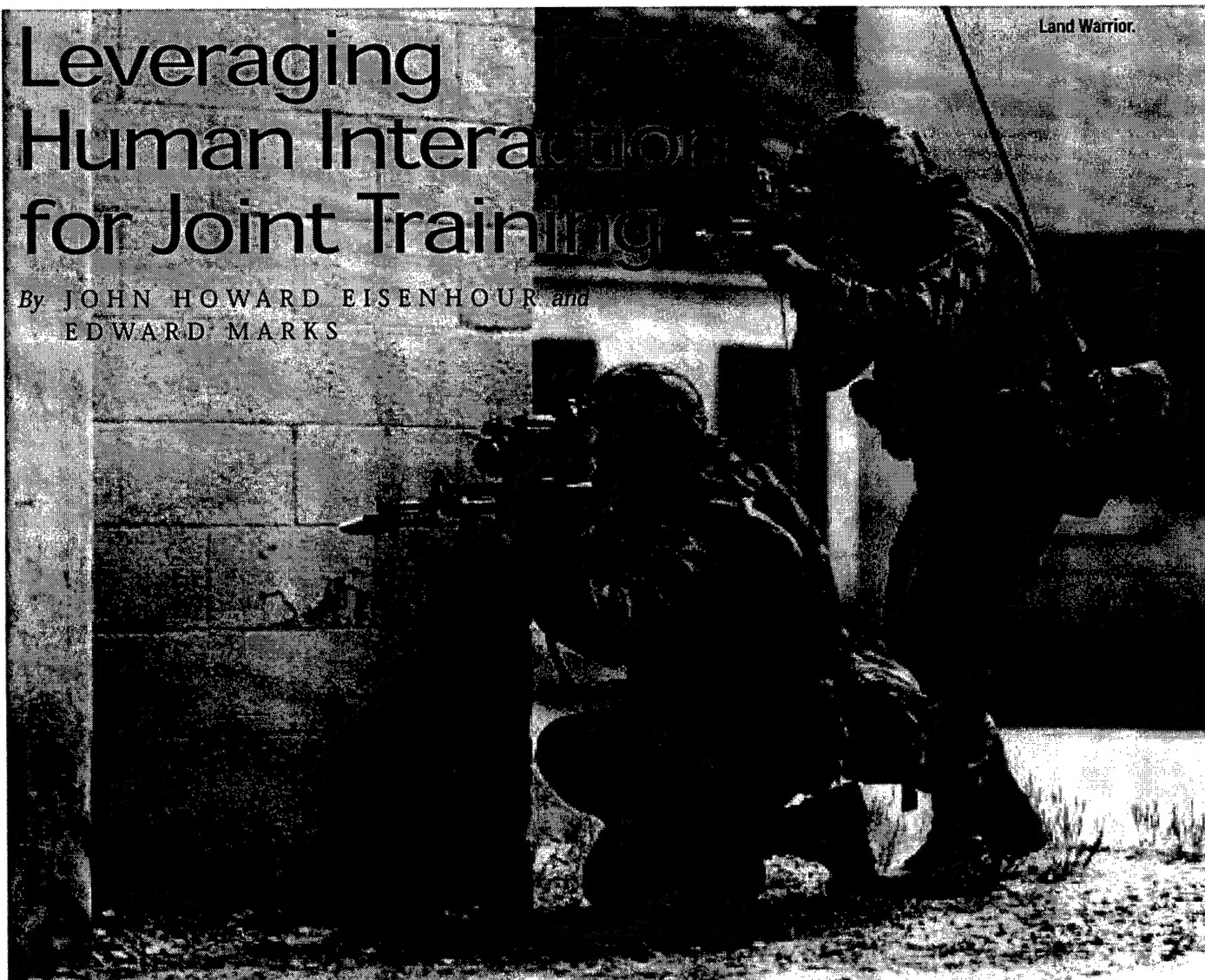# Leveraging Human Interaction for Joint Training

By JOHN HOWARD EISENHOUR and EDWARD MARKS

Land Warrior.

U.S. Army

D esert Storm was clearly a battlefield in a classic sense. Similar conflicts may lurk in the near future, and the Armed Forces are quite properly pursuing training programs to deal with them. At the same time, however, challenges will emerge outside the boundaries of the battlefield. These are small scale contingency operations (as noted in the *Report of the Quadrennial Defense Review*) that require capabilities which both differ from and are allied to warfighting. Such actions include "show-of-force operations, interventions, limited strikes, noncombatant evacuation operations, no-fly zone enforcement, peace enforcement, maritime sanctions enforcement, counterterrorism operations, peacekeeping, humanitarian assistance, and disaster relief."

Effective high level training for most small scale contingency operations must differ from conventional training in the same way these operations differ from warfighting. The contrast arises from the need for the joint commander and his staff to operate differently during the planning and conduct of such operations. To varying degrees, depending on the exact nature of the operation, obligations must be discharged by cooperation rather than command. Human interaction between more or less equals is the primary mode of implementation.

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Striking a Balance

There should be a better balance between pre-scripted events and human interaction in high-level command post exercises. This concern is based on an apparent decision to rely primarily on old fashioned training techniques derived from computer-driven force-on-force models for high-level staffs who are increasingly involved in operations which call for more human interaction with outside elements rather than less.

The current trend toward conducting joint and coalition operations in the real world should lead naturally to emphasis on interaction with other human beings in training sessions simply because more leaders are involved. Moreover, as made clear in the QDR report, the present reality is that we can expect to engage in small scale contingency operations most of the time. Such operations involve an even greater number of actors than major theater wars, as all sorts of friendly national and international officials, non-state players, and members of the private sector gain importance.

Regardless of the number of actors—and thus coordination—involved, the characteristics of modern small scale contingency operations also suggest relatively more human interaction vice pre-programmed action/reaction. A recent comparison of these operations with conventional warfare from a standpoint of information needs showed that the former requires more difficult, softer analysis of far more nonmilitary factors to support consensus decisionmaking and transparency of action. These attributes suggest a great deal of human conversation to secure data and communicate results.

human role playing is necessary to create a valid interactive experience

It is surprising, therefore, that parts of the joint training system involving higher level staff exercises are deemphasizing human interaction in favor of prepared scripts and computer based methods to replicate every action and relationship, both physical and human. This assumes what works for lower level training applies equally to higher levels. Such a shift in technique will not result in the most useful training of higher level staffs for the tasks they are most likely to face.

The Premise

There are limits to both the quality and quantity of human interaction that can be simulated effectively in highly scripted and computer-based training. More critically, by definition exchanges between senior human officials and their respective organizations involve considerable negotiation. The outcome of these conversations is not predetermined or the interactions would be delegated. Moreover, these severe limitations will continue for years—until artificial intelligence develops greater sensitivity to complex human arrangements and relationships.

In many exercises for higher level staffs the lack of attention to forging appropriate working relationships with the range of players in modern small scale contingencies is a major shortcoming in training higher level joint staffs. The only way of correcting this deficiency is to give equal emphasis to other training techniques in exercises. Human interaction must be made a major feature of the experience. This is not a unique idea since some exercises conducted by U.S. Pacific Command (PACOM) have featured human interaction for the past several years.

Classroom and seminar training in negotiating techniques and in human and organizational behavior will help. But adults generally learn better in an active environment than a passive one. They must complete some action to absorb the lesson.
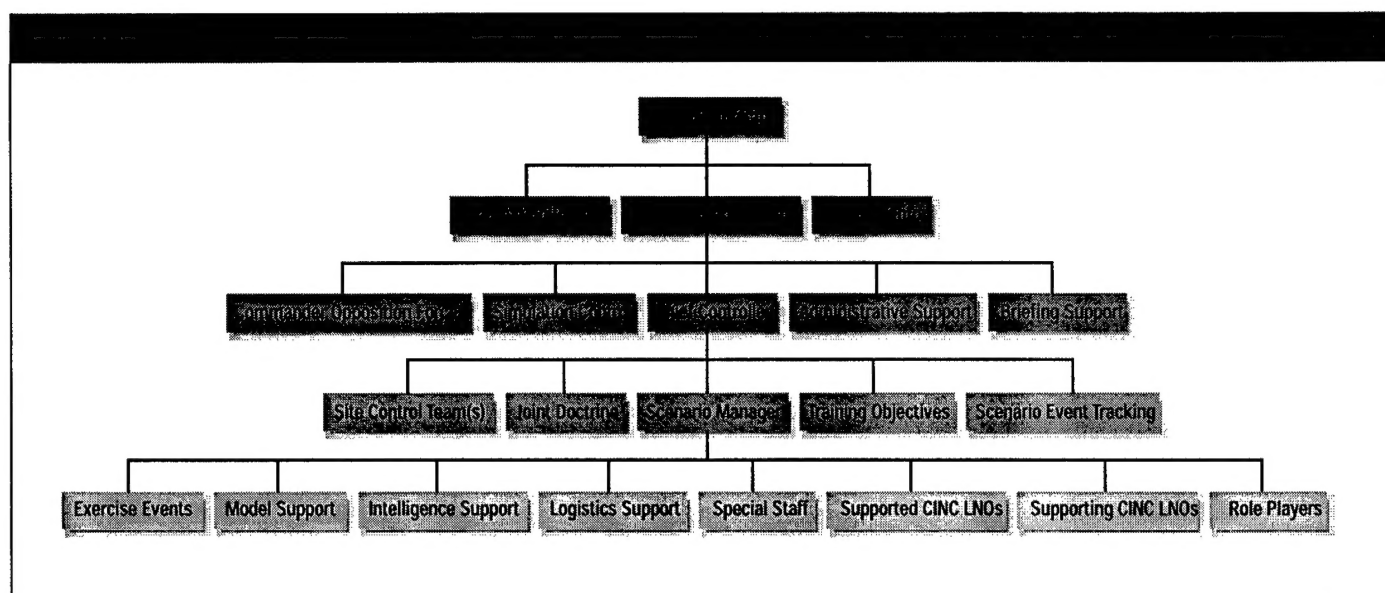
Obviously, computer software should be used in cases when it can provide an appropriate response, and prior preparation of other documents and devices should be maximized; but such actions alone are unlikely to provide a sufficiently realistic challenge for a senior staffer to perform the needed reinforcing tasks. The actions of one party are almost always influenced by those of others if only in terms of the exact sequence of steps to be taken. In a higher headquarters training setting, accommodating this reality translates into adjusting content as well as the timing of stimuli sent by the control group to the training audience. Thus human role playing is necessary to create a valid interactive experience and should be pursued vigorously.

For a better balance between scripted events and human interaction in high-level exercises, it is necessary to focus on the exercise planning process, management structure (the organization of exercise control groups), and the most efficient way of using experts in conjunction with members of the Reserve components for the human interaction portion.

Planning

Successful exercises depend on effective planning in various areas. With regard to human interaction, four key factors will improve the final product. Most important is an early and intense effort to create a truly plausible scenario to engage an audience. Participants in high-level exercises are mature adults who have difficulty relating seriously to weak scenarios regardless of the amount of command direction applied.

Commander/Opposition Control · Simulation Team · Ex Controller · Administrative Support · Briefing Support

Site Control Team(s) · Joint Doctrine · Scenario Manager · Training Objectives · Scenario Event Tracking

Exercise Events · Model Support · Intelligence Support · Logistics Support · Special Staff · Supported CINC LNOs · Supporting CINC LNOs · Role Players

Good stories are frequently hard to develop because of real world sensitivities, so this step remains a challenge. But scenario preparation is as essential as defining training objectives and, in an effort to maintain plausibility, it may be necessary to slight a desirable objective occasionally. Keeping a training audience intellectually involved in a scenario is especially important when it comes to the participation of senior officers whose active engagement has a critical impact on how an exercise is handled by succeeding levels.

The next important planning action is recruiting real experts to organize and conduct the human interaction with a training audience. The choice of people should be scenario-dependent, and they should be drawn from among government officials, consultants, and others depending on available funding and security requirements. This use of government officials and specialists from other sectors can be economical because their participation can often be obtained for the price of their travel and expenses. The key is making arrangements for expert participation well ahead of time, before their supervisors determine that they are too critical to be released. The best approach is to identify individuals with the appropriate background and request them by name rather than tasking organizations for general assistance.

Another issue is avoiding overplanning the details of the final stages of the exercise. While advance preparation of documentation is important, it must be recalled that details of the later steps are largely determined by precise audience actions in the early stages. Thus, except for timeliness in completing the process and baseline data, the

final challenges are best constructed on the spot based on the scenario as it has developed.
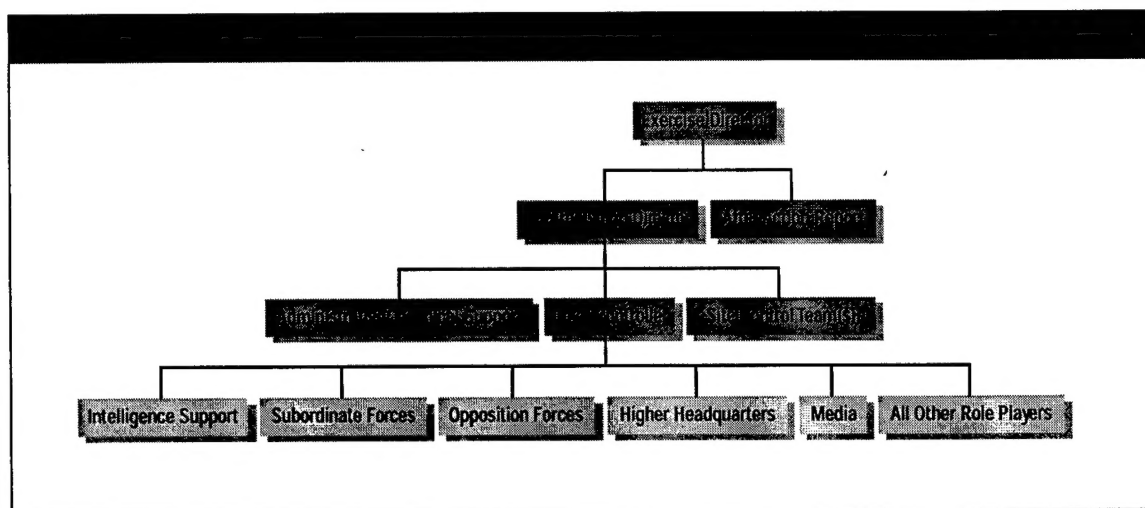
Finally, high-level command post exercises should not be linked directly to field training exercises of any type. Because of the funding for field training, troop availability, and safety requirements, planning at that level must be carried out far in advance. These prior solutions constrain thinking by a training audience to the extent that related command post exercises are not taken seriously.

Control Groups

The common title of this entity—a joint or combined exercise control group—is unfortunate. The mission of the control group should be to wrap a training audience in the environment in which it is supposedly operating according to the scenario. The cocoon analogy is perhaps the most apt.

CJCS Memorandum 3500.03 (June 1, 1996) prescribes a particular structure for exercise control groups (figure 1). This hierarchical organization, with emphasis on control rather than production of training challenges, should be replaced by a simple, relatively flat structure (figure 2).

But duplicating all the impulses that would impact trainees in a real situation is impossible. Nevertheless, if the control group is organized along functional lines based on an assessment of all elements of the environment faced in that scenario, a reasonable replication of the types of issues that would arise can be created. Some aspects—such as the next higher headquarters,

subordinate forces, and the media—will always be present, while others may be either major or minor players depending on the nature of the problems at hand. The important point is that the organization and content of the control group should be designed to support the specific scenario rather than some standard structure outlined in CJCS Memorandum 3500.03.

the control group should be designed to support the specific scenario

One example of the impact of the standard structure was the requirement in a recent PACOM exercise to have a distinct opposition force commander organization with separate computer simulation equipment during an exercise focused on humanitarian assistance operations. Given that there was a large intelligence organization capable of acting as an enemy in cases where hostile activity was relevant, the need for an opposition force group was questionable. And during the planning, the very existence of that group led to demands to add more such activity to the scenario.

In sum, exercise control groups should be designed around the various functions that will influence the problem faced by a training audience rather than around organizations represented in the exercise, computer equipment used to simulate certain aspects of an exercise, doctrine, briefing requirements, or other technical considerations, all of which have prominent places in the standard structure. Not only is that structure extraordinarily expensive but it can lead to distortion of the problems to be projected to a training audience.

Control groups should not be regarded as military organizations which need a great deal of formal internal management. They are relatively small, assembled from disparate bodies for short periods, and comprised of military and civilian personnel of all ranks and stations. Such a range of people will do their best when grouped around a task rather than an organization intended for other purposes. To be efficient they must be decentralized and minimize formal review procedures.

Tailoring the organization of a control group to the story to be projected rather than to the notion of control over a training audience creates an entirely different atmosphere within the control apparatus. Its focus is on painting the correct story in a rich, efficient way. Coordination between groups develops quickly, and many additional challenges for a training audience can be prepared based on the details of the group's performance as the exercise progresses. One or two controllers whose focus is the overall conduct of the exercise and communication with the client training audience and higher authorities can ensure that the control group's activities fit overall objectives.

Experts

When properly organized, real experts assisted by Reservists (especially those with civil affairs and similar experience) can identify an enormous number of scenario-relevant challenges that can be transmitted to a training audience. Many will be derived from the preplanned actions; that is, they will emerge from the moves made by the training audience in response to challenges planned in advance. Exercise managers can then choose which to pursue based on the demonstrated needs of a training audience.

This interactive process can add dramatically to the intensity, breadth, and educational value of exercises for a training audience. That audience

Desert Punch.

U.S. Navy (Kurtis Camiberos)

normally includes people who will be subject to different impulses from the control group because of their positions on the staff. This would be the case in the real world since each staff section concentrates on its relationships with different internal and external actors.

Thus the control group should make the exercise valuable to individual trainees and not just to a training audience as a whole. Moreover, as a decentralized world, exercises must use e-mail, phones, and face-to-face meetings more than formal messages and orders sent to the central control points. This means a greater level of stimulation from the control group is tailored to the specific interests of the individual trainee or staff section.

While it is optimal to have a large cadre of real experts in the control group to provide such interaction, the cost is prohibitive. Experience in recent PACOM exercises demonstrated some ways to maximize the use of experts:

■ Recruit people by name well in advance based on their special expertise in scenario areas. For example, use a country desk officer from the Department of State to direct the play of the role of ambassador and the host country in a target country and use members of the media and nongovernmental organizations to simulate their unique roles.

■ Organize portions of the control group around experts, assigning less highly qualified Reservists and others to committees chaired by such people.

■ Assign responsibility for broad segments of the scenario to each committee, leaving it up to the expert in charge to determine which assigned roles will be played and the best methods given the capabilities of the people assigned. Examples include grouping together all external national and international policy functions or having one committee handle all regional actors depending on the sources of action according to the scenario. Some groupings, such as next higher headquarters and subordinate forces, should always be present.

■ Encourage maximum coordination among committees and reassign supporting personnel to other committees as the scenario develops and needs change.

■ Insist that control group personnel strictly follow simple rules aimed at maintaining transparency and proper roles when conducting human interaction with a training audience.

■ Rely on the expert committee chairs to schedule and manage the work of others assigned to their committees based on the needs of the subgroup.

■ To keep everyone together, stop work and conduct a detailed oral review on the status of the scenario for control group personnel in direct human contact with a training audience at least twice a day.

Doctrine

One fear over human interaction in high level exercises is that solutions negotiated between role players and trainees will violate doctrine or some policy, either because of trainee inexperience or a different agenda on the part of role players, especially those representing other organizations or disciplines. This concern is often dealt with by pre-scripting responses, whether placed in the computer or not. Exercise designers see the reduced reality of this style of higher staff

Roving Sands '97.

training as the price of correctness. Thus while a one-day seminar game with a small group of senior officers is often frank and inventive, larger scale exercises may not have such virtues.

This concern is unjustified because senior commanders favor challenging training and do not want mistake-free experiences for their staffs. The problems that normally confront these staffs are not lofty matters of national strategy nor issues acutely influenced by doctrine. Instead they tend to be concerned with proper procedure and bureaucratic prerogatives. Mistakes that may be made concerning such matters are not the focus of seasoned commanders who are concentrating on mission definition and accomplishment.
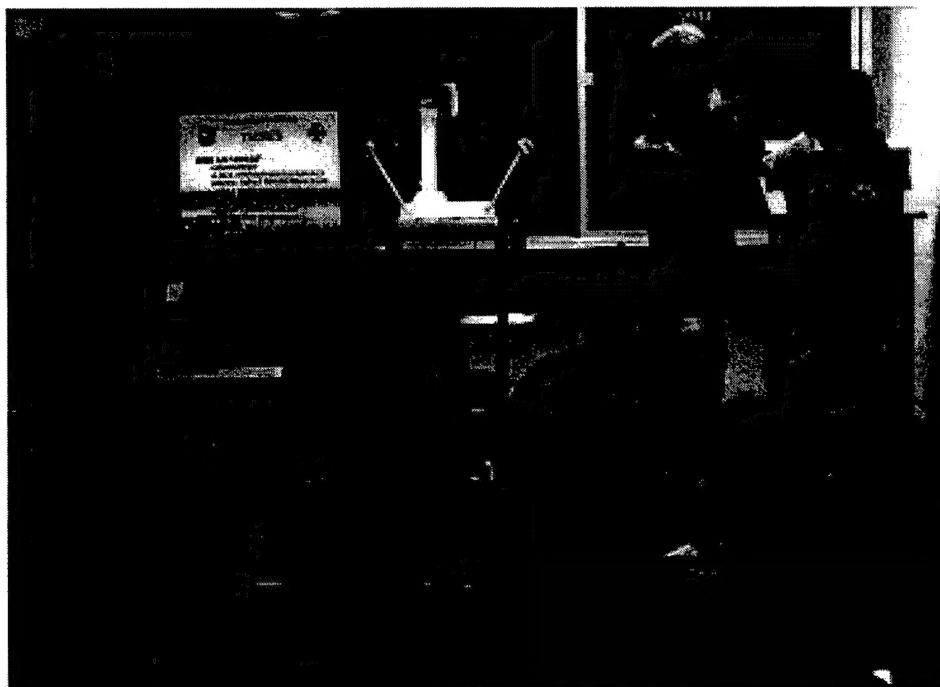
While warfighting scenarios are internally complicated, small scale contingency operations are usually externally complex because of their diverse casts of military and nonmilitary characters. The more involved a small scale contingency becomes—as in military operations other than war or complex emergencies—the more human interaction with outside agencies is required.

In such cases security concerns—the primary responsibility of military commanders—must be coordinated with priorities such as humanitarian assistance, refugee management, reestablishing government, human rights, food, etc., that are largely the responsibilities of U.N. agencies or non-governmental organizations. Moreover, the overall mandate for an operation often will be a result of international negotiations, with all the ambiguity common to such agreements. In addition, each actor involved—including the military component—will have marching orders from its respective governing authority. In such instances success will only be achieved by paying constant attention to operational transparency and cooperation—to "herding the ducks along."

Training exercises, especially for senior staff, must reflect this operational reality and also include a large dose of problem solving. Less reliance on traditional pre-scripted, computer-based training techniques is appropriate. The role of doctrine in such problem solving is less important. Plausible, challenging scenarios, efficient and flexible control groups, and well-conducted human interaction can help prepare higher headquarters staffs to deal with likely developments in the future. **JFQ**

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